### Veterans Walk For Health



#### The Ann Arbor Team

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#### The Problem

- More than half of the deaths that could be prevented by physical activity are in high risk people.
- 22% of the population has 2 or more CVD risk factors. They account for 64% of deaths attributable to a sedentary lifestyle. (Richardson et al, MSSE 2004).
- These high risk individuals are often excluded from physical activity interventions.

### More of the Problem

People at high risk for CVD are often very sedentary and not particularly interested in or good at starting a physical activity program.

#### Where to start.

 Can we get those high risk patients who are interested in starting a walking program to start and stick with it for 6 months?

Does it help with weight management?

## Self-regulation Theory

If you cannot accurately self-monitor your behavior, you cannot change it.



### Self-Regulation Theory

- People are not very good at self-monitoring walking.
- Pedometers dramatically improve our ability to self-monitor walking.
- More detailed feedback from enhanced pedometers should be better than simple pedometer feedback.

### Research Question?

 Does adding pedometer feedback to a nutritional counseling and walking program increase a) weight loss b) walking?

 Does detailed feedback from an enhanced pedometer work better than feedback from a simple pedometer?

#### Veterans Walk For Health

A multi-site randomized controlled trial of a diet and walking intervention for sedentary veterans at high risk for cardiovascular disease.

### Randomized, Controlled Trial

- 5 sessions of nutritional counseling
- 5 sessions + a simple pedometer
- 5 sessions + an enhanced pedometer with web based step-count feedback

### Sedentary

Less than 30 minutes of physical activity of at least moderate intensity (brisk walk) at least 5 days a week.

## At High Risk for CVD

- Diabetes
- Hypertension
- Hypercholesterolemia
- Known cardiovascular disease
- Obesity

#### The Intervention - Diet

- 5 sessions of nutritional counseling
  - Motivational Interviewing
  - Dietary Stages of Change
  - Nutritional Handouts
  - Diet Diary (self-monitoring again)
  - MNT Weight Management

### The Intervention - Walking

 Control arm - time based daily walking goals.

 Simple Pedometer Arm – total daily steps walking goals.

 Enhanced Pedometer Arm – enhanced pedometer walk by walk feedback and goals.

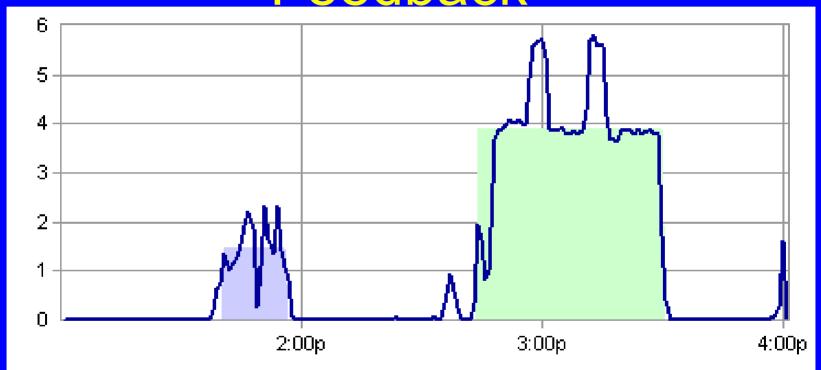
## Simple Pedometer - Digiwalker



# Enhanced Pedometer – Sportbrain iStep



## Enhanced Pedometer Feedback



## Outcome Measure – Actical Accelerometer



## Participant Time Line 24 weeks (6 months)

- Week 1 Session 1 enrollment, actical
- Week 2 Session 2 randomization
- Week 3 Session 3 feedback, goal setting
- Week 6 Session 4 reinforcement
- Week 12 Session 5 reinforcement, actical
- Week 24 Session 6 final session, actical

### Time Line - Ideal

- 4/1/2005 Start Enrolling Participants
- 10/1/2006 Finish Recruitment
- 4/1/2007 Data Collection finished
- 10/1/2007 Submit final manuscript

### Recruitment Goals

- 300 participants overall
- 100 participants per arm

- 50 participants per site (or maybe more).
- One participant every week per site.

#### Results

On average which of the three intervention groups

- A) lost more weight
- B) moved more (accelerometer)

### Veterans Walk For Health



## Participant Safety

## Participant Safety

- 300 high risk patients
- 6 months

 Assume that at least on participant will suffer a heart attack and perhaps die during the course of the study.

## Participant Safety

Five expected and disclosed risks

- Minor musculoskeletal injury
- Adverse Cardiovascular Event (heart attack)
- Loss of Confidentiality
- Diabetes hypoglycemia, foot ulcers
- Hypertension stroke, heart attack

# Before Starting the Walking Program

Written Informed Consent

Written Medical Clearance

## At every visit

 Ask about NEW signs or symptoms of heart problems?

What are they?

## At every visit

 Ask about NEW signs or symptoms of heart problems?

- What are they?
- Chest pain, shortness of breath, neck or left arm pain, light headed, nausea, diaphoresis, lower extremity edema.

## Ask at every visit

Other problems

• Musculoskeletal injury, injuries from wearing the device, problems with blood sugar... etc

### Report all Adverse Events

No matter how minor

 Minor adverse events, record on form and give to study coordinator

• Serious adverse events – report to site PI and to Ann Arbor coordinating team ASAP (within 24 hours).

### Participant Suspension

 For new signs or symptoms that suggest heart problems –

- Suspend participant until medical clearance
- Refer back to primary care physician
- Get another written medical clearance for signed.
- Resume intervention.